		-	Re	ceiv	ing Repo	ort		
	Dat	e: 12/2/	8		Batch		120603	3
	Sup	oplier: 1179	scrip		Dart P	p10:	oust	
ŀ	acking Slip: hvoice: Receipt:	Yes No Cash C		W Sh Q	elease Note Al aybill Attached hipment Comp C6 Inspection fork Order	d: Ye		$\overline{Z}_{I}$
Γ	Discrepancies Part Number	Description		ntity ered	Quantity Received	Quantity Returned	Quantity Short	Comments
-	M 254	0-75V XD		ص(	· 0	Ø	36	
	M61612	680-960	-4	8	U	0	4	
	<u>(</u>					_		10
				Initials	s of receiver	(if shipment	OK) Level	12
•	Production/Ad Date Received/Cos Initial	10/1/					Locat	ion
	H:\FORMS\Purch	nasing\approved pur	ch\RECT\_PO	RT Rev	PD TO THE TOTAL PROPERTY.	<u>-</u> , -		

# **Purchase Order Receipt Listing**

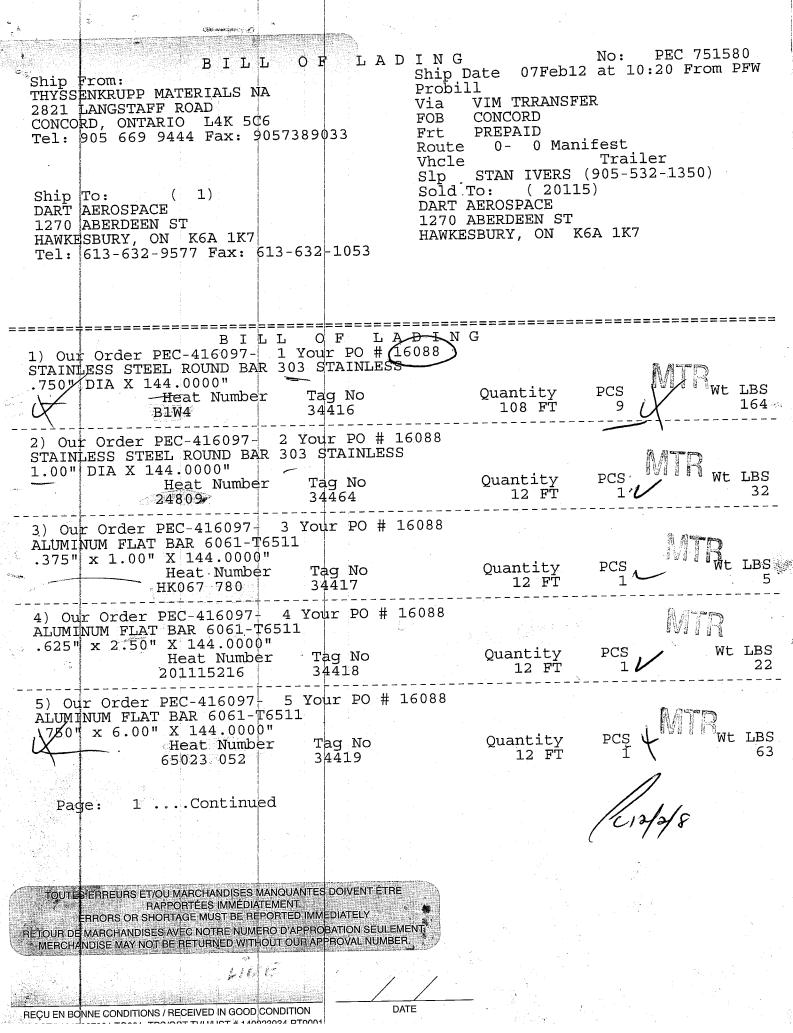
Wednesday, February 08, 2012 10:38:02 AM

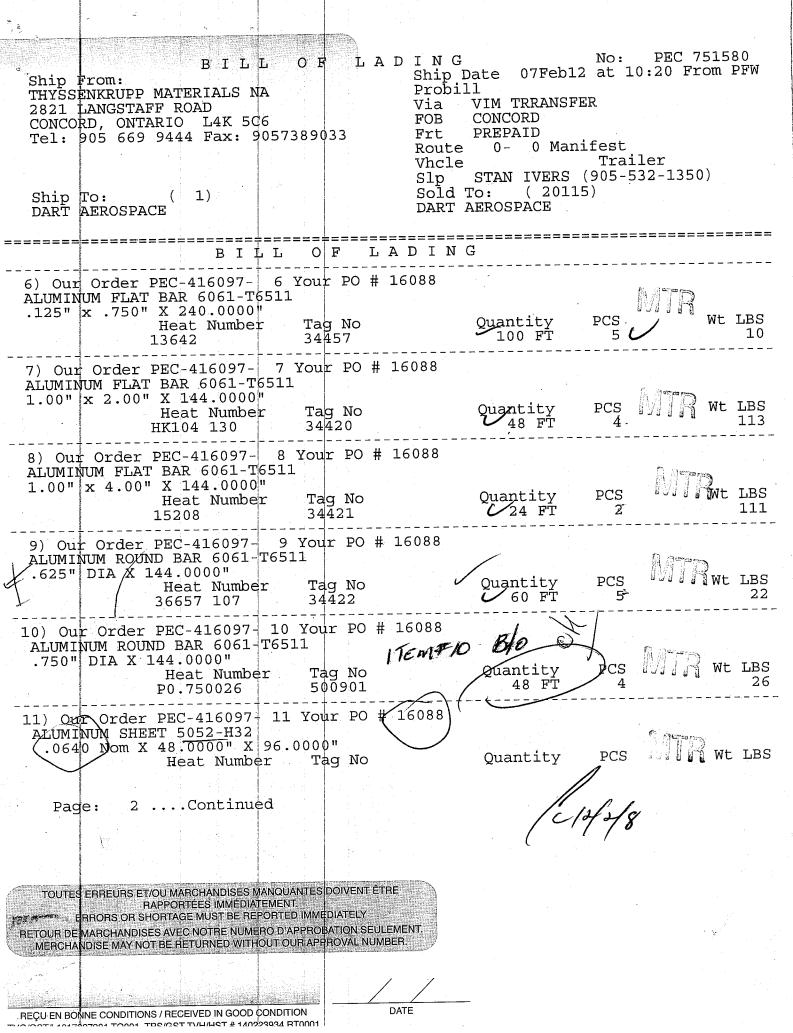
All amounts are calculated in domestic currency.

All Vendors PO ID PO16088 Receipt Dates from 2/8/2012 to 2/8/2012 All Item ID/GL/WOs All Rec. Employees All Currencies Grouped by Vendor ID All Line Item Types

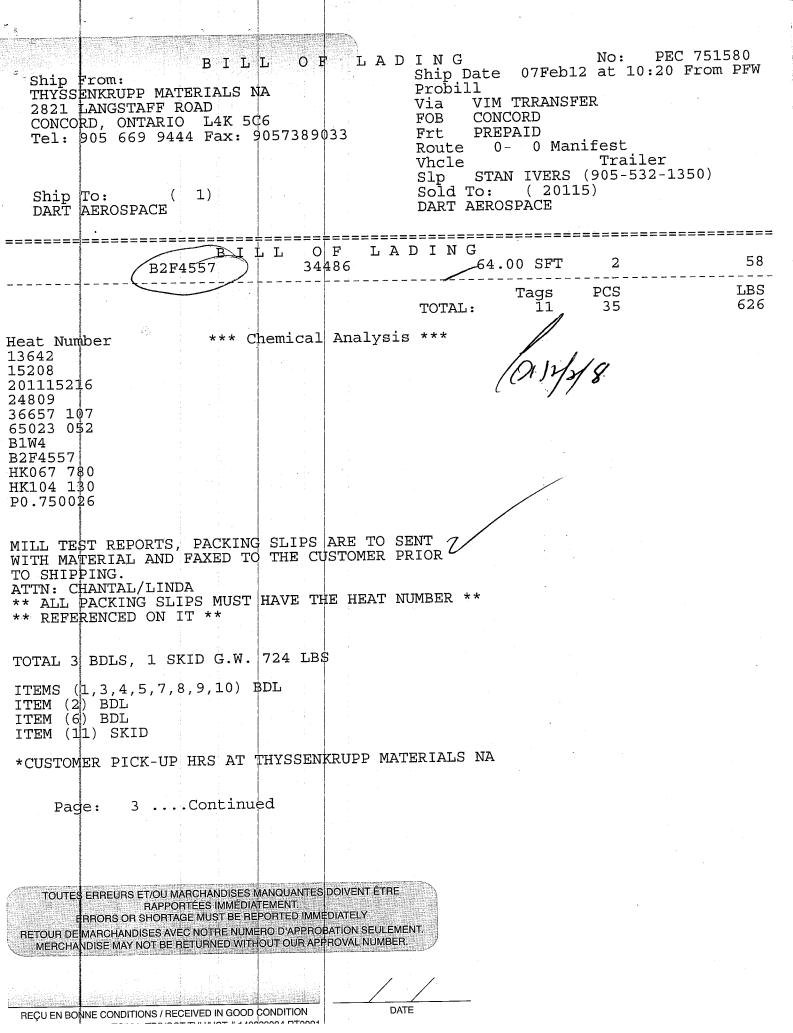
											4									1
	•																CAD	PO19088	VendorID\Ver	Purchase Order ID/ Curr Type
7		No	6		No	,5		No	4		No	<sub>3</sub>		No	2		No	<b>.</b>	ıdor Nan	Line Nbr/ Insp Req
		ā																		Project ID
M5052H328	.750" 120603	6061-T6 Ro	M6061T6R(	120603	6061-T6 Ro .625"	M6061T6R(	120603	6061-T6 Ba 4.00	M6061T6B 000	120603	6061-T6 Ba	M6061T6B:	120603	6061-T6 Ba .125	M6061T6B0 .125	120603	6061T6 BA	000	COP001	Reference/ Description/ Cert Std
		und Bar	0.750		und Bar	0.625		r 1.00 x	1.000X04.		r 1.00 x	1.000X02.		r .750 x	00750X00		R .750 X	0./20A00.	Thyssen	<b>1</b>
sf		f	f		ħ	<b>H</b>		f	f		f	Ħ		F	<b>⊢</b> fs		f	-	krupp Materials CA L	PO U/M / Stock U/M
2/10/2012		48.0000	2/10/2012		60.0000	2/10/2012		24.0000	2/10/2012	-	48.0000	2/10/2012		100.0000	2/10/2012		12.0000	2/10/2012		Required Date Required Qty
2/8/2012		DESJ02	2/8/2012		DESJ02	2/8/2012		DESJ02	2/8/2012		DESJ02	2/8/2012		DESJ02	2/8/2012		DESJ02	2/0/2012	2/8/2012	Recv Date/ Recv Emp
64.0000	₹		48.0000			60.0000			24.0000			48.0000			100.0000			12.0000	2 0000	Recv Qty (PO U/M)
\$1.82		\$56.96	\$1.19		\$55.05	\$0.92		\$225.45	\$9.39		\$229.75	\$4.79		\$124.65	\$1.25		\$125.65	\$10.47	910.47	Cost Per Unit/ Recv Value
0.0000		0.0000	0.0000		. 0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.000	0 0000	Rejected Qty (PO U/M)
0		0	0		O	0		0	0		0	0		0	: 0		0	c	<b>.</b>	MRB Qty/ MRB Reject Qty
\$116.66			\$56.96			\$55.05			\$225.45			\$229.75			\$124.65			<b>#1</b>	e125.65	Book Amt
	M5052H32S.063 sf 2/10/2012 2/8/2012 64.0000 \$1.82 0.0000 0	.750" 120603	6061-T6 Round Bar f 48.0000 DESJ02 \$56.96 0.0000 0 750" 120603	M6061T6R0.750 f 2/10/2012 2/8/2012 48.0000 \$1.19 0.0000 0 6061-T6 Round Bar f 48.0000 DESJ02 \$56.96 0.0000 0 120603 } M5052H32S.063 sf 2/10/2012 2/8/2012 64.0000 \$1.82 0.0000 0	120603  M6061T6R0.750 f 2/10/2012 2/8/2012 48.0000 \$1.19 0.0000 0 0 6061-T6 Round Bar f 48.0000 DESJ02 \$56.96 0.0000 0 120603 }  M5052H32S.063 sf 2/10/2012 2/8/2012 64.0000 \$1.82 0.0000 0 1	6061-T6 Round Bar f 60.0000 DESI02 \$35.05 0.0000 0 625" 120603  M6061T6R0.750 f 2/10/2012 2/8/2012 48.0000 \$1.19 0.0000 0 6061-T6 Round Bar f 48.0000 DESI02 \$56.96 0.0000 0 120603	M6061TGR0.625     f     2/10/2012     2/8/2012     60.0000     \$0.92     0.0000     0       6061-TG Round Bar     f     60.0000     DESJ02     \$55.05     0.0000     0       120603     s     2/10/2012     2/8/2012     48.0000     \$1.19     0.0000     0       6061-TG Round Bar     f     48.0000     DESJ02     \$56.96     0.0000     0       120603     s     2/10/2012     2/8/2012     \$64.0000     \$1.82     0.0000     0	M6061T6R0.625   f   Z/10/2012   Z/8/2012   60.0000   \$0.92   0.0000   0	6061-T6 Bar 1.00 x f	M6061T6B1.000X04. f       2/10/2012       2/8/2012       24.000       \$9.39       0.0000       0         6061-T6 Bar 1.00 x       f       24.0000       DESJ02       \$225.45       0.0000       0         4.00       120603       x       2/10/2012       2/8/2012       60.0000       \$0.92       0.0000       0         6061-T6 Round Bar f       2/10/2012       2/8/2012       60.0000       \$55.05       0.0000       0         6061-T6 Round Bar f       2/10/2012       2/8/2012       48.0000       \$1.19       0.0000       0         6061-T6 Round Bar f       48.0000       DESJ02       \$56.96       0.0000       0         750"       48.0000       DESJ02       \$64.0000       \$1.82       0.0000       0         M5052H32S.063       sf       2/10/2012       2/8/2012       64.0000       \$1.82       0.0000       0	M6061T6B1.000X04.f	No 6061-T6 Bar 1.00 x f 48.000 DESJ02 \$29.75 0.000 0 120603  4 M6061T6B1.000X04 f 2/10/2012 2/8/2012 24.000 \$9.39 0.0000 0 No 6061-T6 Bar 1.00 x f 2/10/2012 2/8/2012 24.0000 \$9.39 0.0000 0 No 120603  5 M6061T6R0.625 f 2/10/2012 2/8/2012 60.0000 \$0.25.45 0.0000 0 6061-T6 Round Bar f 600.000 DESJ02 585.05 0.0000 0 6061-T6 Round Bar f 2/10/2012 2/8/2012 585.05 0.0000 0 6061-T6 Round Bar f 2/10/2012 2/8/2012 585.05 0.0000 0 6061-T6 Round Bar f 2/10/2012 2/8/2012 585.05 0.0000 0 6061-T6 Round Bar f 2/10/2012 2/8/2012 585.05 0.0000 0 6061-T6 Round Bar f 3/10/2012 2/8/2012 585.05 0.0000 0 6061-T6 Round Bar f 3/10/2012 2/8/2012 48.0000 51.19 0.0000 0 6061-T6 Round Bar f 3/10/2012 2/8/2012 64.0000 51.19 0.0000 0 6061-T6 Round Bar f 3/10/2012 2/8/2012 64.0000 51.19 0.0000 0 6061-T6 Round Bar f 3/10/2012 2/8/2012 64.0000 51.82 0.0000 0 6061-T6 Round Bar f 3/10/2012 2/8/2012 64.0000 51.82 0.0000 0	3 M6061T6B1.000X02. f 2/10/2012 2/8/2012 48.0000 \$4.79 0.0000 0 000 No 6061-T6 Bar1.00 x f 48.0000 DESI02 529.75 0.0000 0 120603 4 M6061T6B1.000X04. f 2/10/2012 2/8/2012 2/8/2012 24.0000 \$9.39 0.0000 0 No 6061-T6 Bar1.00 x f 2/10/2012 2/8/2012 2/8/2012 24.0000 \$9.39 0.0000 0 4.00 120603 5 M6061T6R0.625 f 2/10/2012 2/8/2012 60.0000 \$0.92 0.0000 0 No 6061-T6 Round Bar f 60.0000 DESI02 555.05 0.0000 0 No 6061-T6 Round Bar f 2/10/2012 2/8/2012 48.0000 \$1.19 0.0000 0 No 6061-T6 Round Bar f 2/10/2012 2/8/2012 64.0000 \$1.82 0.0000 0 No 6061-T6 Round Bar f 2/10/2012 2/8/2012 64.0000 \$1.82 0.0000 0 No 6061-T6 Round Bar f 2/10/2012 2/8/2012 64.0000 \$1.82 0.0000 0	120603  M6061T6B1.000X02. f  000  No  6061-T6 Bar 1.00 x f  120603  A  M6061T6R0.000X04. f  120603  No  6061-T6 Bar 1.00 x f  120603  M6061T6R0.625 f  120603  No  6061-T6 Round Bar f  600601-T6 Round Bar f  120603  M6061T6 Round Bar f  M6061T6 Round B	No 6061-T6 Bar .750 x f 100.000 DESI02 \$124.65 0.0000 0 .1253  3 M6661T6B1.000X02 f 210.2012 2/8/2012 48.0000 \$4.79 0.0000 0 0 .0000  No 6061-T6 Bar 1.00 x f 48.0000 DESI02 2/8/2012 24.0000 \$9.39 0.0000 0 0 .00000  4 M6661T6B1.000X04 f 210/2012 2/8/2012 24.0000 \$9.39 0.0000 0 0 .00000  No 6061-T6 Bar 1.00 x f 210/2012 2/8/2012 24.0000 \$9.39 0.0000 0 0 .00000  No 6061-T6 Bar 1.00 x f 210/2012 2/8/2012 24.0000 \$9.39 0.0000 0 0 .00000  No 6061-T6 Bar 1.00 x f 210/2012 2/8/2012 24.0000 \$9.39 0.0000 0 0 .00000 0 .00000  S M6661T6R0.625 f 60061-T6 Round Bar f 60.0000 DESI02 825.45 0.0000 0 0 .000000	2 M6661T6B00750X00 f 2102012 282012 100.0000 \$1.25 0.0000 0  No 6061-16 Bar .750 x f 100.000 DESI02 \$124.65 0.0000 0  1.25  3 M6661T6B1.000X02 f 2102012 282012 48.0000 \$4.79 0.0000 0  No 6061-16 Bar 1.00 x f 2102012 282012 282012 2229.75 0.0000 0  4 M6661T6B1.000X04 f 2102012 282012 240000 \$9.39 0.0000 0  No 6061-16 Bar 1.00 x f 24.000 DESI02 24.0000 \$9.39 0.0000 0  No 6061-16 Bar 1.00 x f 24.000 DESI02 24.0000 \$9.39 0.0000 0  No 6061-16 Bar 1.00 x f 64.0000 DESI02 282012 54.0000 0  5 M6661T6R0.025 f 60.0000 DESI02 382012 0.0000 0  6061-16 Round Bar f 64.0000 DESI02 48.0000 \$9.39 0.0000 0  120603	120603	CAD No 6661T6 BAR. 750 X f 12.0000 DESI02 \$125.5 0.0000 0 12.0003  2	Pollosis I	Vendor/DIVendor Name         VC-COPNOI         Thysenkrupp Materials CA. Ltd         Action (Name)         VC-COPNOI         Thysenkrupp Materials CA. Ltd         Action (Name)         20000         S10.47         0.0000         0           CAAD         No         6,000         12.0000         12.0000         DES/02         12.2000         \$11.25 (5)         0.0000         0           L2AAD         No         6,001 T6BAR. 750 X f         2/10.2012         2/20.2012         100.0000         \$1.25 (5)         0.0000         0           No         1,25 (6)         125 (6)         2/10.2012         2/10.2012         2/20.212         100.0000         \$1.25 (6)         0.0000         0           No         1,25 (6)         120.603         2/10.2012         2/20.2012         48.0000         \$4.79         0.0000         0           No         666-176 Bar 1.00 x f         2/10.2012         2/20.2012         2/20.2012         48.0000         \$4.79         0.0000         0           120603         120603         2/10.2012         2/20.2012         2/20.000         \$52.29.75         0.0000         0           120603         120603         2/10.2012         2/20.000         2/20.000         \$52.545         0.0000         0

Page 1 of 2





						VendorID\Vendor Name PO16088 9 CAD No	Purchase Order ID/ Curr Type
	W N	13	No	12	No	idor Name 9 No	Line Nbr/ Insp Req
	h) a					VC-C	Project ID
	6061-T6 Bar .625 x f 2.50 120603	M6061T6B0.625X02. f 500	6061T6 BAR .375 x f 1.00 120603	M6061T6B0.375X01. f	M303R1.000 303 Round Bar 1.00 120603	VC-COP001 Thyssenkr M303R0.750 f 303 Round Bar 0.750 f 120603	Reference/ Description/ Cert Std
	625 x f	625X02. f	.375 x f	375X01. f	f ar 1.00 f	Thyssenkrupp Materials CA Ltd f ar 0.750 f	PO U/M / Stock U/M
	12.0000	2/10/2012	12.0000	2/10/2012	2/10/2012 12.0000	2/10/2012 108.0000	Required Date Required Qty
	DESJ02	2/8/2012	DESJ02	2/8/2012	2/8/2012 DESJ02	2/8/2012 DESJ02	Recv Date/ Recv Emp
		12.0000		12.0000	12.0000	108.0000	Recv Qty (PO U/M)
Total (	\$43.80	\$3.65	\$24.93	\$2.08	\$6.90 \$82.81	\$3.89 \$420.02	Cost Per Unit/ Recv Value
Total Received Quantity: Total Qty to Inspect (PO U/M): Total Reject Quantity: Total Receipt Value: Total Balance Due Quantity:	0.0000	0.0000	0.0000	0.0000	0.0000 0.0000	0.0000 0.0000	Inspected Qty/ Rejected Qty (PO U/M)
uantity: O U/M): uantity: t Value: uantity:	0	0	0	0	0 0	0	MRB Qty/ MRB Reject Qty
\$00.0000 0.0000 0.0000 \$1,505.73 0.0000		\$43.80	,	\$24.93	\$82.81	\$420.02	Book Amt



PEC 751580 No:LADING o F Ship Date 07Feb12 at 10:20 From PFW BILL Ship From: Probill THYSSENKRUPP MATERIALS NA VIM TRRANSFER Via 2821 LANGSTAFF ROAD CONCORD FOB CONCORD, ONTARIO L4K 5C6 PREPAID Frt Tel: 905 669 9444 Fax: 9057389033 0- 0 Manifest Route Trailer Vhcle STAN IVERS (905-532-1350) Slp (20115)Sold To: 1) Ship To: DART AEROSPACE DART AEROSPACE

ADDED TO EVERY ORDER. \*\*\*

Page: 4 .... Last

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE
RAPPORTÉES IMMÉDIATEMENT.
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY
RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION

DATE

STAINLESS STEEL ROUND BAR 303 STAINLESS .750" DIA X 144.0000" PART NO.\_\_\_\_ DART AEROSPACE

PO/Rel 16088

Signed by:

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

**Certificate of Mill Test Results** 

BL PEC-751580-001



# 6870 HIGHWAY 42 EAST

Customer: 007206 001 Certificate: 702461 9 Mail To:

THYSSENKRUPP MATERIALS
2821 LANGSTAFF ROAD
CONCORD, ON L4K5C6

ship To:

METALLURGICAL

TEST

REPORT

NORTH AMERICAN STAINLESS 6870 HIGHWAY 42 EAST GHENT, KY 41045

THYSSENKRUPP MATERIALS
2821 LANGSTAFF ROAD
CONCORD, ON L4K5C6

Date: 1/16/2012 Page: 1

Steel: 303

Finish: CD

Correctors

NAS Order: PN 0016898 06

Round Bar, Annealed, Cold Draw M998/2552705 EN 10204 3.1, ASTM A484/08

AMS 5640U TYPE 1, QQS-764B CONDITION A

PRODUCT DESCRIPTION:

PEC235015

REMARKS:

COMPLIES W/REQUIREMENTS OF DFARS EU DIRECTIVE 2002.95 FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION EC. ROHS, EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG IN USA

BE3177 9 Product Id Skid # Diameter Size Weight -----Length----144.00 Mark 8 Pieces Commodity Code

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

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.3305 .4790	S	.0438	G
.4790	SI	.0780 17.2770	8
		17.2770	Q
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	BE3177 9	Product Id
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	RL 208.00 72.15 104.48 56.39 49.18	Mo.
	72.15	.278 KSI
	104.48	REI
	56.39	**
	49.18	Eing % 4D
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		:

NAS hereby certifies that the analysis on this certification is correct and the material meets the specifications stated.

Technical Dept. Mgr.

Doc No. 125955 Indexed 17Jan12 by jessy

# **Certificate of Mill Test Results**

7Feb12 Pg 1/1

DART AEROSPACE STAINLESS STEEL ROUND BAR 303 STAINLESS 1.00" DIAX 144.0000" PART NO.

PO/Rel 16088

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

	BL PEC-/51580-002
Signed by:	

tomer: COPCON PO#:PEC-23640 n:RB030100 Bundle:VJC5154636 He n:RB030100 Bundle:VJC5154637 He	TA CHEN INT	ANAL THE	This MTR contains 1 page (Page# 1
n:RB030100 Bundle:VJC5154636 He n:RB030100 Bundle:VJC5154637 He		ERNATIONAL, INC.	MTR#:VJRB93238710.G1
n:RB030100 Bundle:VJC5154637 H	58 SO#:PL83	84	
TO A I DECETT ES	at#:24809		
TDAIDROFILES	eat#:24809		(6
	LTD.		VIRAJ
TRAS TROT ISSUED	Augal Area Tara	pur, Thans(Dist), Maharestre, INDIA - 40 Tal: Palgar, DistThans-401501, MAH	01506, E-Mail: sales@viraj.com
gi & Mkt off: G-33 & 54, MIDC, IRAU	ILL Mahagaon	Tal: Palgar, DistThane-401501, MAH	ARASTRA, INDIA, vielge@viraj.com
aka. Mony Di ini			
		TEST CERTIFICATE	
	ORDER	NO PACKING LIST NO	INSPECTION NO DATE
ISTOMER CHEN INTERNATIONAL, INC. L-B		51/932387/10	100001376614 23.11.2011
55 OBISPO AVENUE LONG BEACH,	L33350		GRADE HEAT No
A90805.	1	<b>2</b>	(#248DP)
UNDLE NO: 54634 ,5154635 ,5154636 ,5154637 .	\$1.54638 \$1.546	   139 _5154640	
54634,5154635,5154636,5154637.	1	_	•
ESCRIPTION			
AINLESS STEEL BRIGHT BARS			
OLD DRAWN POLISHED - 2H			
		NCE LENGTH P	IECES WEIGHT
IZE SHAPE	TOLERA	NCE BERGIR	**************************************
* ROUND	ASTM A48	4 12 - 13 2	12 6,906.000 LB
	<del> </del>	CHEMICAL ANALYSIS	
<u> </u>		N.M.	%Co 96N2
6C %Mn %Si %S	%oP %o	Cr %Ni %oCu %oM*	
0470 1920 0.430 0.3000	0.0290 17	460 \$.050 0.110 0.080 (	0.03250
		TEST RESULTS	
			Grain Size
1.2 70 3 1616	Elongation %	Reduction Of Area Hardness % BHN	NOS
trength ksi	7		7.0
	40.0	61.0 201.0	7.0
PECIFICATION:	<del></del>		
PECIFICATION		SCOND A. A 484-10. AMS 3640U TYPE I, EX	CEPT MARKING, QQS-764B COND A.
MATERIAL CONFIRMS TO ASTM ASSI-956 EXCEPT MARKING, UNS-S-20000. CERTIFI	ED AS PER EN 10	04-31.	
ACEL I I			•
REMARKS			OFFREE FROM CONTINOUS CARBIDE NETWORK
MATERIAL IS FREE FROM MERCURY CO	NTABINATION, F.	REE FROM WELD OR WELD REPAIRS, MICH TION ANNEALING TEMPERATURE 10SUC \$ (	RO:FREE FROM CONTINOUS CARBIDE NETWORK DAKING TIME 11:40cl., WATER QUENCHED,
MATERIAL IS FREE FROM MERCURY CO ON GRAIN BOUNDARIES. MACRO GOOD WE CONFIRM THAT THE MATERIAL HAS	ntamination, F Minimum solut Deen tested at	REE FROM WELD OR WELD REPAIRS, MICH TON ANNEALING TEMPERATURE LUCUS ( DEFOUND TO BE FREE FROM RADIOACTI	RO:FREE FROM CONTINOUS CARBIDE NETWORK DAKING TIME Hafirel. WATER QUENCHED, VE CONTAMINATION.MELT SOURCE:AOD.
MATERIAL IS FREE FROM MERCURY CO	ntamination, F Minimum solut Been tested at	REE FROM WELD OR WELD REPAIRS, MICH TON ANNEALING TEMPERATURE 10502.5 TO FOUND TO BE FREE FROM RADIOACTT	RO:FREE FROM CONTINOUS CARBIDE NETWORK DAKING TIME Hadirel WATER QUENCHED, VE CONTAMINATION.MELT SOURCE:AOD.
MATERIAL IS FREE FROM MERCURY COI ON GRAIN BOUNDARIES. MACRO GOOD. WE CONFIRM THAT THE MATERIAL HAS MELT & MANUFACTURED: INDIA	BEEN TESTED AT	nd found to be free from radioacti	VE CONTAMINATION.MELT SOURCE AOD.
MATERIAL IS FREE FROM MERCURY COI ON GRAIN BOUNDARIES. MACRO GOOD. WE CONFIRM THAT THE MATERIAL HAS MELT & MANUFACTURED: INDIA	BEEN TESTED AT	REE FROM WELD OR WELD REPAIRS, MICH TON ANNEALING TEMPERATURE 10502.5 ( ED FOUND TO BE FREE FROM RADIOACTT as been tested and complies with the te	VE CONTAMINATION.MELT SOURCE AOD.
MATERIAL IS FREE FROM MERCURY COI ON GRAIN BOUNDARIES. MACRO GOOD. WE CONFIRM THAT THE MATERIAL HAS MELT & MANUFACTURED: INDIA	BEEN TESTED AT	nd found to be free from radioacti	VE CONTAMINATION.MELT SOURCE AOD.
MATERIAL IS FREE FROM MERCURY COI ON GRAIN BOUNDARIES. MACRO GOOD. WE CONFIRM THAT THE MATERIAL HAS MELT & MANUFACTURED: INDIA	BEEN TESTED AT	nd found to be free from radioacti	VE CONTAMINATION.MELT SOURCE AOD.
MATERIAL IS FREE FROM MERCURY COI ON GRAIN BOUNDARIES. MACRO GOOD. WE CONFIRM THAT THE MATERIAL HAS MELT & MANUFACTURED: INDIA	BEEN TESTED AT	nd found to be free from radioacti	VE CONTAMINATION.MELT SOURCE AOD.
MATERIAL IS FREE FROM MERCURY COI ON GRAIN BOUNDARIES. MACRO GOOD. WE CONFIRM THAT THE MATERIAL HAS MELT & MANUFACTURED: INDIA	BEEN TESTED AT	nd found to be free from radioacti	THE S OF Order/c outract.
MATERIAL IS FREE FROM MERCURY COI ON GRAIN BOUNDARIES. MACRO GOOD. WE CONFIRM THAT THE MATERIAL HAS MELT & MANUFACTURED: INDIA	BEEN TESTED AT	nd found to be free from radioacti	VE CONTAMINATION.MELT SOURCE AOD.
MATERIAL IS FREE FROM MERCURY COI ON GRAIN BOUNDARIES. MACRO GOOD. WE CONFIRM THAT THE MATERIAL HAS MELT & MANUFACTURED: INDIA	BEEN TESTED AT	nd found to be free from radioacti	WORKS INSPECTOR
Material is free from Mercury COI on Grain Boundaries. Macro Good. We Confirm that the Material has Melt & Manufac Tured: Dydia	BEEN TESTED AT	nd found to be free from radioacti	THE S OF Order/C DIRECT.
MATERIAL IS FREE FROM MERCURY COI ON GRAIN BOUNDARIES. MACRO GOOD. WE CONFIRM THAT THE MATERIAL HAS MELT & MANUFACTURED: INDIA	BEEN TESTED AT	nd found to be free from radioacti	THE S OF Order/C DIRECT.

### **Certificate of Mill Test Results**

988 BL PEC-751

Signed

DART AEROSPACE

ÂLUMINUM F. AT BAR 6061-T6511 .375" x 1.00" X 144.0000" PART NO. PO/Rel 16088

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

	BL PEC-751580-003	7Feb12
by:		Pg 1/1



# CERTIFIED TEST REPORT http://Certs.KaiserAluminum.com

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
14020 S. COIL PLUS DR UNIT 100
PLAINFIELD. IL 60544

CUSTOMER PO NUMBI		CUSTOME	R PART NUMBER:	PRODUCT DESCRIPTIO		
PEC-231374-5		019884	-6	375 X 1.000 SC F	RECT BAR	
KAISER ORDER NUMB	ER: LINE ITEM:		SHIP DATE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:
9085852	005		07/11/2011	HK067 780	6061	T6511
WEIGHT SHIPPED:	QUANTITY:		B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:
1016.000 LB	192.000 [	PCS	966945			12.000 FT
SHIP TO:				SOLD TO:		
THYSSENKRUP 2821 LANGSTAI CONCORD, ON	FF RAOD			THYSSENKRUPP 2821 LANGSTAF CONCORD, ON I	F RAOD	

### **Actual Physical Properties**

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	%Elong in 2	HARDI	VESS	CONDUCT.	BEND
		0001	48.1	42.6	21.3	RE	96	N/A	N/A
XTR104883 XTR104883	00C1 00C1	0002	47.9	41.8	20.7	RE	95	N/A	N/A
XTR104883	0001	0003	48.2	12.8	20.7	RE	95	N/A	N/A
XTR104883	0001	0004	47.3	42.2	21.3	RE	96	N/A	N/A
XTR104883	0001	0005	48.1	42.6	21.7	RE	96	N/A	N/A
XTR104883	0001	0006	48.0	42.2	21.8	RE	96	N/A	N/A
XTR104883	0001	0007	47.4	42.0	-20.8	RE	96	N/A	N/A

# Chemical Composition (wt%), Aluminum Remainder

LIMITS	Şi	Fe	Cu	Mn	Mg	Cr	Zn	Ti	₽b	Bi	Zr	Ea	Tot	
Maximum	0.8	0.7	0.40 0.15	0.15	1.2	0.35 0.04	C.25	0.15	NA NA	NA NA	NA NA	C.05	0.15	

### Applicable Requirements:

ASTM-B221-08-STENCILED ASME-SB221 1998 SECT II AMS-QQ-A-2CO/8 UNS#96061 (T6511 also conforms to T6-not applicable to other tempers)

### Miscellaneous Notes

MANUFACTURED IN USA (LOS ANGELES, CA) MELTED IN USA

### CERTIFICATION

Kaiser Aluminum Fabricated Products, LIC heroby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Tom G. Small, Jr., QA Manager

----

Plant Serial: 00348343

Juffer.

Kaiser Order Number: 9085852

Page 1 of 1

Line Item: 005

# THYSSENKRUPP MATERIALS NA DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 .625" x 2.50" X 144.0000" PART NO.

PO/Rel 16088

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Certificate of Mill Test Results BL PEC-751580-004

Pg 1/1



OL THE

# SERVICE CENTER METALS Prince George, VA 23875 5850 Quality Way

# CERTIFIED INSPECTION REPORT AND TEST RESULTS FOR EXTRUDED PRODUCTS

OUR ORDER NUMBER

136245

N

ThyssenKrupp Materials NA ThyssenKrupp Materials NA PEC Quantity Certified 882 lbs 40pcs CUSTOMER PART NUMBER MANIFEST NUMBER PEC-233418 RB0107 141871 DESCRIPTION DIE NUMBER SCRB .625x2.500 ALLOY / TEMPER 6061-T6511 RB0107 SALESPERSON DATE OF SHIPMENT David Schroeder 10/7/2011 AMS-QQA-200/8 SPECIFICATION ASTM-B221-08 StencilContinuous **CERTIFICATION** :

revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the meet the requirements of 6061-T6 description, and that samples representative of the material met the composition limits and had the mechanical properties shown. SCM extrusions are manufactured in the USA from ingot melted and cast in the United States or Canada. We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification

Items produced and certified as 6061-T6511 also

48.4	48.4	48.4	Mechanical Properties  Tests Lot No.  1 201115216	Test Date 10/01/11	Ultimate Tensile Strength (KSI)  49.3	Yie
48.7 48.4	48.7 48.4 49.6	48.7 48.4 49.6		: : :	Ultimate Tensile Strength (KSI) 49.3	Tield
48.4	48.4 49.6	48.4 49.6		10/01/11	48.7	45.7
	49.6	49.6		10/01/11	48.4	45.4

S <sub>1</sub> =	nday ananya/mahasayaatii muuraasidmahayayayayayayayayayaya	C07H0657 C07H0658	Cast Number
		6061 6061	Alloy
		0.67 0.71	<u> S</u>
		0.25 0.30	Fe
		0.32 0.34	5
		0.10 0.09	Mn
	, the angle of the second	0.88 0.89	Mg
Calvir		60.0 60.0	lδ
J. Wigo		0.01 0.01	<u>Zn</u>
ins, Dire	0	0.01	H
rector of Qual		0.05 0.05	<u>Each</u>
ity & Technic		0.15 0.15	Total
or of Quality & Technical Services Rev. 973/17 - UMS	Print Date: 10/7/2011		<u>Melted In</u> United States of America

Chemical Composition for Aluminum Alloy 6061

### **Certificate of Mill Test Results**

BL PEC-751580-005

Pg 1/1

DART AEROSPACE ALUMINUM FLAT BAR 6061-T6511 .750" x 6.00" X 144.0000" PART NO. PO/Rel 16088

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs. Signed by:\_

The second second second	KAISER	
	ALUMINUM	r
i	FABRICATED PRODUCTS	

### **CERTIFIED TEST REPORT**

http://Online.KaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE

CUSTOMER PO NUMBE	R:	CUSTOME	R PART NUMB	<b>—</b>	PRODUCT DESCRIPTION:		
PEC-236091-5	•	ALREC	00274		.750 X 6.000 PREC	ISION WIDE BAR	
KAISER ORDER NUMBE	R: LINE ITEM:		SHIP DATE	:	KAISER LOT NUMBER.	ALLOY:	TEMPER:
611473	005		01/18/20	)12	65023 052	6061 🧳 💮	T6511B.
WEIGHT SHIPPED:	QUANTITY:		B/L NUMBE	R:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:
1016.000 LB	16.000 P	cs	602403				12.000 FT
SHIP TO:	· I				SOLD TO:		

THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA

### Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARI	NESS	CONDUCT.	BEND
65023 352 65023 352 65023 352	0001 0001 0001	0001 0002 0003	46.9 47.4 47.6	41.8 42.8 43.1	21.3 21.1 19.8	RE RE RE	94 95 94	N/A N/A N/A	N/A N/A

### Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Çr	Zn	Ti.	Pb	Bi.	Zr	Ea	Tot	
Maximum Minimum A32150	0.80 0.40	C.00	0.15	0.15 0.00 .07	c.8c	0.35 0.04 ,10	0.00	0.00	AN AN OC.	AK AK 00.			0.15 0.30 .01	

### Applicable Requirements:

PER ASIM-B221-08, STENCILED ASME-\$B221 1998 SECT II PER AMS-00-A-200/8 UNS#6061 MEETS ALL SPECIFICATION REQUIREMENTS FOR 6061-T6511/T6 ELEVATED MINIMUM MECHANICAL PROPERTIES AS FOLLOWS: UTS = 42.0 KSI MIN YIELD = 33.0 KSI MIN ELONGATION = 10.0% MIN

### Miscellaneous Notes

MANUFACTURED IN USA (COMMERCE, CA)

MELTED IN USA

### CERTIFICATION

Kaiser Aluminum Fabricated Products, LiC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Cuality & Technology Manager

Plant Serial: 00025643 Kaiser Order Number: 611473

Line Item: 005

Page 1 of 1

# THYSSENKRUPP MATERIALS NA DART AEROSPACE ALUMNUM FIAT BAR 6061-T65511 .125" x .750" X 240.0000" PART NO. Tesult

PO/Rel 16088

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

**Certificate of Mill Test Results** BL PEC-751580-006

Pg 1/1 Teb12



411 CHRISLEA ROAD, WOODBRIDGE, ONTARIO, CANADA L4L 8N4 TEL: (416)745-4444 FAX:(416)745-0925 1-800-668-7210 http://www.extrudex.com

CUSTOMER PO 1 0.65 1773 CUSTOMER PO 1-125-750  Test Da 1-125-750  Si Fe Cu Mn Mg 0.55 0.22 0.21 0.06 0.8	Chemical Composition  Cast Number  A.11 13642 6081	A.11 6061	Mechanical Properties  Lot Alloy	MILL TEST REPORT  BALL TO  THYSSENKRUPP MATERIALS,NA SO DESCRIPTION  1.125"X.750" FB
DIE NUMBER   DAT     S	<u>Fe</u> <u>Cu</u> <u>Mn</u> <u>Mg</u> <u>Cr</u> <u>Ni</u> 0.22 0.21 0.06 0.84 0.04	Oct/03/11 44.2	Test Date Ultimate Tensile Strength (KSI)	0.65 S 44  0.65 S 44  0.65 S 44  0.65 S 6081  0.65 PART NUMBER  1-125-750
EOF SHIPMENT 10/6/201 10/6/201 ESHAW CORBES DOD (KSI) EN 39.8 39.8 0.00 0.00	<u>Ga</u> ⊻ 0.00 0.00		-	DATE OF SHIPMENT 10/6/2011 SALESIMAN FORBES DODWELL
EXTRUDEX ORDER NO. MANIFEST NO.  1	<u>tr Bi Pb Sn Sr Co Al</u> .00 0.00 0.00 0.00 0.00 Remainder	89.3, 89.7, 89.2		X ORDER NO. MANI  — 1  MADE IN CANADA  LL TEST ASTM B221
210 210 Other	<u>Other</u> 0.00			210

Quality-Control-Manager-David Natale

1 - CUSTOMER COPY

MILL TEST REPORT

**Certificate of Mill Test Results** 

BL PEC-751580-007

Pg 1/1

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 1.00" x 2.00" X 144.0000" PART NO.

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

igned by:		
-8		



### CERTIFIED TEST REPORT

http://Online.KaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

CUSTOMER PO NUMB	ER:	CUSTON	IER PART NUMB	ER:	PRODUCT DESCRIPTION	PRODUCT DESCRIPTION					
PEC-235584 <b>-</b> 3		B22/S	TK		1.000 X 2.000 SC	RECT BAR					
KAISER ORDER NUMB	ER: LINE ITEM:		SHIP DATE:	:	KAISER LOT NUMBER:	ALLOY:	TEMPER:				
609864	003		01/09/20	12	HK104 130	6061	T6511				
WEIGHT SHIPPED:	QUANTITY:		B/L NUMBE	R:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:				
2032.000 LB	72.000 P	cs	602304				12.000 FT				
SHIP TO:					SOLD TO:						
TUNCOENIKELIE		CNA		THYSSENKRUPP MATERIALS NA							

THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA

### **Actual Physical Properties**

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARD	NESS	CONDUCT.	BEND
FK104 130 FK104 130 FK104 130 FK104 130	0001 0001 0001 0001	1 2 3 4	56.8 54.0 52.2 52.8	50.3 47.8	15.5 15.6 12.5 12.8	RE RE RE	95 95 92 92	N/A N/A N/A N/A	N/A N/A N/A N/A
EK104 130	0001	. 5	52.7	47.9	12.3	RE	92	N/A	N/A

# Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Çu	Mn	Mg	Çr	Zn	Ti	Pb	Bi	Zr	Ea	Tot	
Maximum	0.80	0.70	0.40	0.15	1,20	0.35	C.25	0.15	NA	NA	NA	0.05	0.15	
Minimum								0.00	ДM	NA		0.00	0.00	
H41320	.69	.43	.28	.08	.89	.11	.09	.02	.01	.0:	.00	.05	,11	

### Applicable Requirements:

ASTM-B221-08-STENCILED ASME-SB221 1998 SECT II AMS-QQ-A-200/8 UNS#96061 (T6511 also conforms to T6-not applicable to other tempers)

### Miscellaneous Notes

MANUFACTURED IN USA (SHERMAN, TX)

MELTED IN USA

### CERTIFICATION

hereby certifies that metal shipped under this order has been Kaiser Aluminum Fabricated Products, LLC inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Quality & Technology Manager

Plant Serial: 00023766 Kaiser Order Number: 609864

Line Item: 003

Page 1 of 1

### Certificate of Mill Test Results

BL PEC-751580-008

7Feb12 Pg 1/1

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511 1.00" x 4.00" X 144.0000" PART NO. PO/Rel 1608

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

	DL FEC-731360-000	
red by		

CAN ART
ALUMINUM EXTRUSION INC.

### Material Test Report

Manifest: 238205

Ship To: ThyssenKrupp Materials NA

Ticket:

2821 Langstaff Road

5226042

Concord, ON L4K 5C6

Our Order: 846040 - 2

46040 - 2 Cust

Cust P.O.: 234827

Die: LS05885

Part: 05885-000-144

Alloy Temper: 6061 T6511

Description: 1.000 x 4.000

Print Date: 12/2/11

	Chemical Composition Range												
6061	<u>Si</u>	<u>Fe</u>	Cu	Mn	Mg	<u>Cr</u>	<u>Zn</u>	<u>Ti</u>	Other Each	OtherTotal			
Min	0.40		0.15		8.0	0.04							
Max	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	0.15			

				eal Proper ength ksi	ties		
Sample ID	Cast #	Lot#	Test Date	<u>Ultimate</u> <u>Tensile</u>	<u>Yield</u> 2% offset	Elongation 2" gage length	
21429	15208	A11	11/29/11	43.11	39.22	17.5	

Applicable Specifications

|ASTMB221|08 | QQΛ200/8

Country of Origin:

428 Jutras Dr., Windsor, Ontario, CANADA N8N 5C5

Can Art Aluminum Extrusion Inc. certifies that materials shipped under this order have been inspected and tested in accordance with Aluminum Association and agreed upon customer specifications. Can Art assumes no liability for additional costs which may be incurred during the customer's manufacture and sale of its products, and is subject only to the replacement of any materials not within agreed upon specifications provided written notification is received by Can Art within 30 days from the date of shipment

Eric Hotte - Tensile Testing

Authorized:

Evan Eng, Quality Assurance Mgr.

### **Certificate of Mill Test Results**

BL PEC-751580-009

7Feb12 Pg 1/2

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511 .625" DIA X 144.0000" PART NO. PO/Rel 16088

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:	
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BEGIN

### **CERTIFIED TEST REPORT**

http://Online.KaiserAluminum.com

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048

PRODUCT DESCRIPTION: CUSTOMER PART NUMBER: CUSTOMER PO NUMBER: .625 ROD +/-.005 ALRD00391 PEC-236186-2 TEMPER: ALLOY: KAISER LOT NUMBER: SHIP DATE: KAISER ORDER NUMBER: LINE ITEM: T6511 6061 36657 107 01/20/2012 002 611778 LENGTH: WIDTH: DIAM/DAF/THKNS: B/L NUMBER: WEIGHT SHIPPED: QUANTITY: 12.000 FT 1004.000 LB 232,000 PCS 602416 SOLD TO: SHIP TO:

THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA

### Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARD	NESS	CONDUCT.	BEND
		0001	46.3	42.7	21.1	RE	96	N/A	N/A
36657 107	0001		1		22.0	RE	96	N/A	N/A
36657 107	0001	0002	46.8	42.7					
36657 107	0001	0003	46.5	39.9	19.6	RE	96	N/A	N/A
36657 107	0001	0004	46.7	40.3	19.9	RE	96	N/A	N/A
			45.5	40.9	20.5	RE	96	N/A	N/A
36657 107	0001	0005				RE	96	N/A	N/A
36657 107	0001	0006	47.5	43.1	21.3		• -	- •	
36657 107	0001	7,000	46.8	39.3	21.3	RE	96	N/A	N/A
36657 107	0001	8000	45.7	41.4	20.5	RE	94	N/A	N/A
0000		. 1	45.6	40.4	22.3	RE	95	N/A	N/A
36657 107	0001	9000	· I				95	N/A	N/A
36657 107	0001	0010	45.6	40.4	22.3	RE		- · ·	
36657 107	0001	0011	46.5	39.4	21.7	RE	93	N/A	N/A
36657 107	0001	0012	46.9	43.3	20.0	RE	97	N/A	N/A

# Chemical Composition (wt%), Aluminum Remainder

					-1								
LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum Minimum						0.35	0.25 0.00	C.15 0.00	NA NA	NA NA			0.15 0.00
A31935	.73	.32		.05	.93	.10	.02	.02	. ၁၁	.01	.00	.00	.01

### Applicable Requirements:

ASTM-B221-08 ASME-SB221 1998 SECT II AMS-QQ-A-200/8 UNS#96061 (T6511 also conforms to T6-not applicable to other tempers)

### Miscellaneous Notes

Page 1 of 2

MANUFACTURED IN USA (COMMERCE, CA)

MELTED IN USA

Plant Serial: 00025737 Kaiser Order Number: 611778

Line Item: 002

### **Certificate of Mill Test Results**

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511 .625" DIA X 144.0000" PART NO. PO/Rel 16088

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

	BL PEC-751580-009	7Feb12
Signed by:		Pg 2/2

KAISE	R
ALUMINU	M
FABRICATED PRODUC	TS

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048 THIN THE

### **CERTIFIED TEST REPORT**

http://Online.KaiserAluminum.com

### CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Alex Yeh, Quality & Technology Manader

Plant Serial: 00025737 Kaiser Order Number: 611778

Line Item: 002

Page 2 of 2

**Certificate of Mill Test Results** 

ALUMINUM ROUND BAR 6061-T6511 .750" DIA X 144.0000" PART NO.

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

	BL PEC-751580-01
Signed by:	

Pg 1/2



# KAISE FABRICATED PRODUCTS

KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048



**CERTIFIED TEST REPORT** http://Certs.KaiserAluminum.com

CUSTOMER PO NUMBE	ER: C	USTOMER P	ART NU	MBER:	PRODUCT DESCRIPTION	l:	
PEC-232331-6	0	15238-9			KAISERSELECT F	RECISION ROD .7	750 +/004
KAISER ORDER NUMBI	ER: LINE ITEM:		SHIP DA	TE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:
601377	006		09/09/	2011	P0.750026	6061	T6511B
WEIGHT SHIPPED:	QUANTITY:		B/L NUM	BER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:
1515.000 LB	243.000 PC	s	60138	0			12.000 FT
SHIP TO:					SOLD TO:		
THYSSENKRUP	P MATERIALS	NA			THYSSENKRUPP	MATERIALS NA	

2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA

### Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARI	NESS	CONDUCT.	BEND
XTR000279	CC01	0001	49.0	46.3	17.5	RE	96	N/A	N/A
XTROCC279	0001	0002	49.4	46.3	14.3	RE	99	N/A	N/A
XTR000279	0001	0003	57.0	53.0	15.0	RE	95	N/A	N/A
XTR000279	0001	CCO4	56.2	53.5	14.1	RE	98	N/A	N/A
XTR000279	0001	OOC 5	54.5	51.0	15.5	RE	98	N/A	N/A
XTR000279	0001	0006	54.9	50.0	17.7	RE	98	N/A	N/A
XTR000279	0001	0007	56.0	53.3	14.9	RE	98	N/A	N/A
XTR000279	0001	8000	55.2	49.0	13,5	RE	98	N/A	$N/\Lambda$
XTRC00279	0001	0009	56.0	47.3	14.9	RΞ	97	N/A	N/A
XTRC00279	0001	0013	55.7	49.5	15.6	RE	97	N/A	N/A
XTR000279	0001	001‡	55.5	51.7	15.4	RE	97	N/A	A\N
XTR000279	C001	0012	57.3	53.5	16.3	RE	96	N/A	N/A
XTR000279	0001	0013	54.7	49.1	14.8	RE	96	N/A	N/A
XTR000279	0001	0014	53.9	48.7	14.4	RE	96	N/A	N/A

### Chemical Composition (wt%), Aluminum Remainder

LIMITS	Şi	Fe	Cψ	Mn	Mg	Cr	2n	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	C.70	0.40	0.15	1.20	C.35	0.25	0.15	NA	NA	NA	0.05	0.15
Mirimum	0.40	0.00	0.15	0.00	08.0	0.04	0.00	0.00	NА	NA	МK	0.00	0.00
A31472	.78	.28	. 28	.10	. 93	.08	.C4	.02	.00	.01	.oc	.01	.01

### CERTIFICATION

Raiser Aluminum Fabricated Products, LTC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Alex Yeh, Quality & Technology Manager

Page 1 of 2

Plant Serial: 00006696 Kaiser Crder Number: 601377

Line Item: 006

Doc No. 117754 Indexed 14Sep11 by slssup1

### **Certificate of Mill Test Results**

BL PEC-751580-010

7Feb12 Pg 2/2

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511 .750" DIA X 144,0000" PART NO. PO/Rel 16088

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:	Pg
------------	----



KAISER ALUMINUM FABRICATED PRODUCTS, LLC 5205 KAISER DRIVE KALAMAZOO, MI 49048



CERTIFIED TEST REPORT http://Certs.KaiserAluminum.com

### Applicable Requirements:

PER ASTM-B221-08, STENCILED ASME-SB221 1998 SECT II PER AMS-QQ-A-200/8 UNS#6C61 MEETS ALL SPECIFICATION REQUIREMENTS FOR 6061-T6511/T6 ELEVATED MINIMUM MECHANICAL PROPERTIES AS FOLLOWS: UTS = 42.0 KSI MIN YIELD = 38.0 KSI MIN ELONGATION = 10.0% MIN

### Miscellaneous Notes

MANUFACIURED IN USA (COMMERCE, CA)

MELTED IN USA

### CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Alex Yen, Quality & Technology Manager

MK.K

Plant Serial: 00006696

Kaiser Order Number: 601377

Line Item: 006

Page 2 of 2

### **Certificate of Mill Test Results**

DART AEROSPACE

ALUMINUM SHEET 5052-H32 .0640 Nom X 48.0000" X 96.0000" PART NO.

PO/Rel 16088

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

	BL PEC-751580-011	7Feb12
Signed by:		_ Pg 1/1

		<b>。</b> 西	南铅	<b>,</b>				五量 UALITY					(	7		٠
語 号。 Serial No:	. I	00555590113	2010123	_										_		
订货单位 Customer				GALEX INC.												
승기号 Contract No		SWA	140019819 11-0171-626-61		产品名称 Product			<b>软</b> 合金樽板				批号 Lat No			32F4557	
金金 Alloy Ar	e状态 nd ∵empe	sr (	5052H32	规格(mm) Dimension			0.064 × 48×							箱菜 2 Bax Count		
技术标准 Technique Standard							Q/EI	Q/EL259-2000				片数 Quantit	у	1	85. 000	I,
Chemi		学成分标 mpositio	AE n Standar			GB/T	3190-1998				重量(kg) 2 Weight			344.00	0	
				·····	机粒性能 Mechanical Property											
状态 Temper E		収	表示 ten			皮(Mi Stre		添加强灰(MPa) Yield Strongth			h	延伸率 Elongat			tion	
		Samplis	g Method	标准值 Standard Value		突測值 Actual Value		标程值 Standard Value	失利 d Actu Vals		ī l	标准值 Stundard Value		实测位 Actus Value		1
K32		极	横向		215-255		-250	≥160	194-2		0	≥ï		14.5-21		
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					Ch		化学成分 nl Comp	esition								
焙炸号 Welt No	元章 Sleaent	21	Fe	Cu	M	,	Иs	Cr	Ní		Zn	Τ±		[	Aì	
	旅准值 Standard Value	≤0.25	€0,40	<b>€0.10</b>	€0.	. 10	£ 88-	0.15 0.00		-	€0.10			-	<b>分</b> 員	ŀ
230256	实测点 Actual Value	0.06	0, 34	0.01	a	laE	3, 64	6, 20		•	C. 91				in faste i	₫ <del>ur</del>
Surt	央西原量 台格 知含量[m1/190gAl] 标准值 face Convrol 知含量[m1/190gAl] Standard V						=									
几何尺寸 Dimension Control				_			rogen Content			实制值 Actual Yalue						
名往 Note		MATER AMS-O	JAU CON DA-250 STA	FORMS Andari	]7 <b>(</b> 08 10	ASTI C	M 630, Large	AND PETS				· · · · · · · ·				

质量、环境、职业能乘去全分别通过1508001、18014001、GB/728001管理体系认证,本产品的铅、汞、锅、 六价格的古通均符合欢迎ROIIS指令2005/618/EC的要求。 钟(1000PPa、

Quality Environment and Professions Heat Nanagement System have Certified as per ISOSOST 1501 1101 and CHATESOOI Content of Plubum Hydrarsyrum, Cadelus and sexavalent chrome conforms to ROMS 2005/D18/SC, arsenic in land then 1000PPm.

检查员: YY-DENGHUA --

Inspector

日期: Date

2011

西南铝业

SOUTHWEST ALUMINIUM (GROUP) CO., LTD.

被责任公司

SWA2100606114410

Doc No. 116943

Indexed 25Aug11 by slssup1



Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7

Tel: 613 632 9577 Fax: 613 632 1053

### **PURCHASE ORDER**

### Purchase Order ID PO16088

Purchase Order Date 2/03/12 PO Print Date 2/06/12

Page Number 1 of 4

Order From:

THYSSENKRUPP MATERIALS CA LTD

O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"

TORONTO, ON M5W 5V8

CA

Contact Name

Vendor Phone Vendor Fax

905 738 9033

Vendor Account Nbr

Change Nbr:

2

905 669 9444

Buyer

Requisition Nbr

Tax Resale Nbr

**Terms** Currency

**FOB** 

Chantal Lavoie

10127-2607

Net 30 CAD

Destination-Collect

Ship To:

DART AEROSPACE LTD

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

VC-COP001

CANADA

REVISED

No substitution or deviation without

Certificate of Conformity or Material Certification required when applicable

consent.

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable Unit o	Req Qty/ Ship Method of Measure	Unit Price	Extended Price
1 M6	061T6B0.750X06.000 ტა <b>პ</b>	6061T6 BAR .750 X 6.00	2/10/12 Yes	12.00 Yours ppd f	\$10.5000	\$126.00
		Special Inst:	OR AMS 4117/4128/4 QQ-A-200/8 OR AMS AMS 4160 OR ASTM B221	OR AMS-QQ-A-225/8 4115/4116 3-00-A-200/8 OR	\$1.2500	\$125.00
2 Me	5061T6B00750X00.125	6061-T6 Bar .750 x .125	2/10/12 Yes	Coffee	<b>V</b> 1.2300	
3 M	6061T6B1.000X02.000 6- Ч	Special Inst 6061-T6 Bar 1.00 x 2.00		48.00 Yours ppd f	\$4.8000	\$230.40
		Special Inst	SAME AS ABOVE	MATERIAL CEP REQ'D UPON	RTIFICATION DELIVERY	

Change Date: 2/06/12

### **PURCHASE ORDER** Dart Aerospace Ltd. 1270 Aberdeen Street Purchase Order ID PO16088 Hawkesbury, ON K6A 1K7 ospace Tel: 613 632 9577 Purchase Order Date 2/03/12 Fax: 613 632 1053 PO Print Date 2/06/12 Page Number 2 of 4 VC-COP001 Order From: THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POST AL"A" TORONTO, ON M5W 5V8 CA Chantal Lavoie Buyer Contact Name Requisition Nbr 905 669 9444 Vendor Phone 10127-2607 Tax Resale Nbr 905 738 9033 Vendor Fax Net 30 **Terms** Vendor Account Nbr CAD Currency Destination-Collect **FOB** \$226.08 \$9.4200 2/10/12 4.00 Yours ppd 6061-T6 Bar 1.00 x 4.00 M6061T6B1.000X04.000 f· Yes SAME AS ABOVE Special Inst: \$55.20 \$0.9200 60.00 Yours ppd 2/10/12 6061-T6 Round Bar .625" M6061T6R0.625 5 f Yes 012 MATERIAL:6061-Special Inst: T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 \$57.12 \$1.1900 Yours ppd 2/10/12 6061-T6 Round Bar .750 M6061T6R0.750 Yes SAME AS ABOVE Special Inst: \$116.99 \$1.8280 64.00 Yours ppd 2/10/12 5052-H32 .063 Sheet M5052H32S.063 Yes 022 MATERIAL: 5052-H32 ALUMINUM Special Inst: SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 AMS 4016 OR ASTM B209

Change Date:

2

Change Nbr:

2/06/12

No substitution or deviation without

Certificate of Conformity or Material Certification required when applicable

consent.

### **PURCHASE ORDER** Dart Aerospace Ltd. 1270 Aberdeen Street Purchase Order ID PO16088 space Hawkesbury, ON K6A 1K7 Tel: 613 632 9577 Purchase Order Date 2/03/12 Fax: 613 632 1053 PO Print Date 2/06/12 Page Number 3 of 4 VC-COP001 Order From : THYSSENKRUPP MATERIALS CA LTD O/A VPK METAL- C/O T27540/PO BOX 4275,POST AL"A" TORONTO, ON M5W 5V8 CA Chantal Lavoie Buyer Contact Name Requisition Nbr 905 669 9444 Vendor Phone 10127-2607 Tax Resale Nbr 905 738 9033 Vendor Fax Net 30 **Terms** Vendor Account Nbr CAD Currency Destination-Collect **FOB** \$3,9000 108.00 Yours ppd 2/10/12 303 Round Bar 0.750 M303R0.750 f Reportali Yes MATERIAL: AISI 303 SS ROUND BAR, Special Inst: AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE \$6.9200 2/10/12 303 Round Bar 1.00 M303R1.000 10 Yes SAME AS ABOVE Special Inst: \$16.5000 Yours ppd 2/10/12 304 BAR 750 X 2.50 M304B0.750X2.500 11 MATERIAL: AISI 304/316 BAR OR AISI Special Inst: 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE 12.00 Yours ppd \$2.0830 2/10/12 6061T6 BAR .375 x 1.00 M6061T6B0.375X01.000 12 Yes 602 MATERIAL:6061-Special Inst: T6/T651/T6510/T6511/T62 ALUMINUM AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116

QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM

B221

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Certificate of Conformity or Material

\$421.20

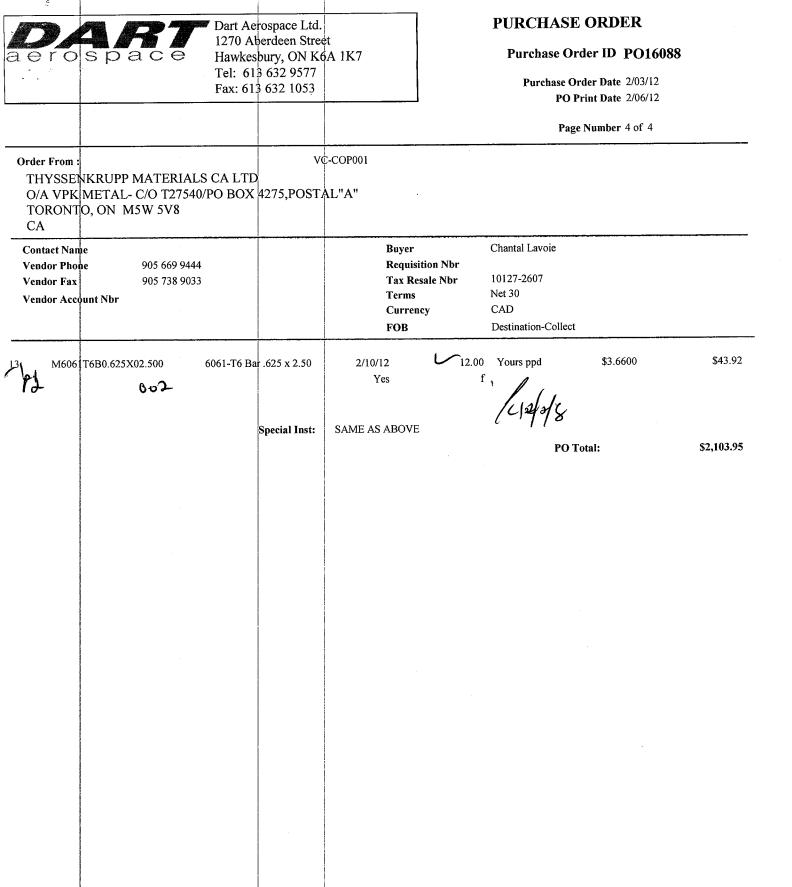
\$83.04

\$594.00

\$25.00

Certification required when applicable

Change Nor: 2 Change Date: 2/06/12



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Certificate of Conformity or Material Certification required when applicable

Change Nbr. 2 Change Date: 2/06/12